

## Program Summary Arizona University System Performance Measures

### Program Overview

Administered by the Arizona University System, consisting of Arizona State University (ASU), Northern Arizona University (NAU), and the University of Arizona (UA), university performance measures seek to assess quality of education and the strength of university research programs. In accordance with A.R.S. § 35-122, performance measures across state agencies track indicators related to program budgeting.

The FY 2006 General Appropriation Act defined certain uniform performance measures across all campuses of the university system. Uniform measures provide the opportunity for comparisons between campuses. However, such assessments can be misleading if data-gathering methodologies differ from one campus to the next. The Arizona Board of Regents (ABOR) works to coordinate university evaluations and mitigate this difficulty.

The ABOR Changing Directions initiative, allowing the universities to pursue differentiated missions, also calls into question the usefulness of comparisons. Overall, NAU undergraduates complete their studies faster and spend more class time with ranked faculty than those at other universities, but the NAU mission is undergraduate education and that university therefore reserves more resources for undergraduates.

Table 1 displays the FY 2006 General Appropriation Act uniform university performance measures, as well as their FY 2006 approved targets.

The first uniform measure, “percent of graduating seniors who rate their overall university experience as good/excellent,” has consistently remained in the mid- to high-90s for every campus in the past few years. However, this measure may be overly broad for its purpose. When considering only responses of “excellent”, around 30% of ASU graduates, 35% of UA graduates, and 45% of NAU graduates gave that

rating. Additionally, by gathering the impressions of only graduating seniors, this measure overlooks the potentially negative opinions of students who chose to transfer or who otherwise left the university.

The second uniform measure, “percent of full-time undergraduate students enrolled per semester in 3 or more primary courses with ranked faculty,” has declined at both ASU and UA, while remaining consistently high at NAU. This comparison largely reflects the differentiated missions of the universities under the previously mentioned Changing Directions initiative. ASU and UA are rededicating resources to their research missions while NAU continues to focus on undergraduate education.

The definition of ranked faculty is central to this measure. The universities report that ranked faculty includes all instructors with the exception of unpaid volunteers and graduate students. Therefore, this measure does not address undergraduate student contact with professors. *(Please see the Appendix following this summary for more detail on faculty ranks.)*

The third uniform measure, “average number of years taken to graduate for students who began as freshmen,” was largely stable, with slight increases between FY 2003 and FY 2004. Nevertheless, the statistic remains at or above 4.5 years throughout the system. Joint Legislative Budget Committee (JLBC) Staff believes the measure is a good indicator of this aspect of university quality.

The Legislature has indicated continuing interest in timely completion of undergraduate studies. The Higher Education Budget Reconciliation Bill (Laws 2005, Chapter 330) prohibits funding for undergraduates exceeding a certain credit-hour threshold, beginning in FY 2007.

**Table 1**

### FY 2006 Approved Performance Measures and Targets

<u>Measure</u>	<u>ASUM</u>	<u>ASUE</u>	<u>ASUW</u>	<u>NAU</u>	<u>UAM</u>	<u>UAHSC</u>
Percent of graduating seniors who rate their overall university experience as “good”/“excellent”	95	96	98	98	95	99
Percent of full-time undergraduate students enrolled per semester in 3 or more primary courses with ranked faculty *	72	66	72	93	80	--
Average number of years taken to graduate for students who began as freshmen	4.6	5.2	--	4.4	4.6	--

\* Ranked faculty excludes only unpaid volunteers and graduate students. Across the system, professors of some rank taught 51% of all primary class sections in FY 2005, compared to 47% nationally in FY 2004.

In contrast to uniform performance measures, distinct measures judge each campus by its own goals and mission. However, distinct performance measures preclude the opportunity for potentially helpful comparisons. In the FY 2006 General Appropriation Act, only the ASU Main Campus has a distinct performance measure. It is “external dollars for research and creative activity,” with a target of \$180 million in FY 2006. Between FY 2003 and FY 2004, this amount increased nearly 30% to \$158 million.

### **Program Funding**

Legislative policy thus far does not appropriate fiscal penalties or awards to any agency for missing or meeting its mandated targets. However, with their FY 2006 and FY 2007 budget submittals, the universities requested incremental funding based on certain suggested performance measures.

*Table 2* summarizes the proposed measures and their rewards. The universities did not put forward costs for movement away from the targets.

<b>Table 2</b> <b>Arizona University System</b> <b>FY 2006/FY 2007 Suggested Performance Funding</b>	
<b><u>Target</u></b>	<b><u>Award</u></b>
Awarded Degree Growth (esp. Education, Engineering, Nursing)	\$1,000 to \$2,000 per degree
Needy AZ Graduate Growth *	\$250 per degree
Increase in 6 Year Graduation Rate for First-Time Full-Time Freshmen	\$100,000 per 0.5%
Decrease in Average Years to Graduation for Students Entering as Freshmen	\$100,000 per 0.1%
* The universities defined need as eligibility for federal Pell Grants.	

### **Recent Programmatic Changes**

In its FY 2006 budget recommendation, JLBC Staff reduced the number of suggested performance measures for each agency, emphasizing outcomes above input/output. The Legislature adopted these changes in the FY 2006 General Appropriation Act.

For the Arizona University System, the General Appropriation Act removed performance measures relating to fundraising, the growth of smaller campuses, and administrative issues.

### **Performance Measure Policy**

Beyond addressing the relationship between performance targets and agency funding, performance measure policy should balance between evaluations of quantity and evaluations of quality. Quantities are simple to measure and useful in straightforward circumstances, such as the ASU Main assessment of incoming research funding.

Nevertheless, it can be difficult to extrapolate quality improvements from quantity growth. Considering, for example, the ABOR-suggested performance measures in *Table 2*, increasing numbers of graduates and decreasing years to graduation might be a sign of improvements in student advising and course availability. On the other hand, such results could also be an indication of the declining rigor of coursework.

Meanwhile, direct measures of quality, such as the first uniform measure in *Table 1* “percent of graduating seniors who rate their overall university experience as good/excellent” may not provide useful information. It is likely that students use slightly different criteria in determining their overall satisfaction with university life. Some of these parameters may be of little interest to the Legislature.

Therefore, a careful selection of quantity targets that reflect educational quality is in order. Legislative investments in education are often promoted in terms of the economic contribution of university graduates. For that reason, factors such as the employability of graduates, their income potential, and their tenure within the state have importance.

Historically, the success of graduates is difficult to measure after the fact. Alumni surveys tend to have poor and sporadic response rates. However, several programs, especially at UA, have had success gathering information upon graduation. Many of these departments use web-based forms and databases to collect facts on student career or academic placements, expected salaries, and locations. If completing such questionnaires was a requirement of graduation, such a methodology would have a good chance of reflecting the quality of university education to interested parties.

The universities should consider developing new performance measures to track the percentage of graduates with job or continuing education offers in their chosen fields; the average starting/offered salaries of graduates, delineated between the public and private sectors; and the percentage of graduates intending to remain in Arizona. Conducting these evaluations would allow the universities to better measure the quality of their educational services and graduates, as well as their contribution to the state’s economic prosperity.

Previous General Appropriation Acts sought to count undergraduate student class time with professors as a target reflecting educational quality. However, the second uniform measure in *Table 1*, “percent of full-time undergraduate students enrolled per semester in 3 or more primary courses with ranked faculty,” may not be the best method of deriving that information.

As explained above, this second measure excludes undergraduate contact with teaching assistants, but includes class time with instructors who may have no more experience in their fields than master's degrees.

The universities could derive more rigorous measures of undergraduate-scholar contact from statistics they already collect. Such performance targets could focus on percentages of students enrolled in primary courses or percentages of undergraduate primary courses taught. The measures could include teaching by any combination of assistant, associate, and full professors, but likely should exclude all other ranked faculty.

Turning to distinct measures, since ASU is currently the only university with such a performance target, the Legislature might consider one for UA and one for NAU. If the UA research mission is as important as the ASU mission, the UA budget could adopt the current ASU distinct measure, "external dollars for research and creative activity." However, a measure

of external dollars as a percentage of total university revenues or expenditures might provide for more meaningful comparisons between the 2 schools.

Since NAU is focusing on undergraduate education, a distinct performance target for that university should focus on undergraduate experiences. Possible statistics could measure the percentage of undergraduates participating in some kind of field experience (research or internship) or the percentage of undergraduates in seminar-style (20 or less) classes with professors.

### Appendix

Table 3 below describes the different classifications of university faculty. With the exceptions of unpaid volunteers and graduate students, all faculty hold ranks. However, generally speaking, only the various grades of professor are eligible for tenure and must hold terminal (the highest possible) degrees in their fields.

**Table 3**

#### **Arizona University System Faculty Classifications <sup>1/</sup>**

<u>Classification</u>	<u>Ranked</u>	<u>Tenure</u>	<u>Role</u>	<u>Qualifications</u>
Professor Emeritus	Yes	No	Teaching, research, university service	Retirement from tenured position
Regents' Professor	Yes	Yes	Teaching, advising, research, university service	Outstanding contributions in all roles
<b>Professor</b>	Yes	Yes	Teaching, advising, research, university service	Demonstrated success as associate professor and national recognition
<b>Associate Professor</b>	Yes	Eligible	Teaching, advising, research, university service	Demonstrated success as assistant professor
<b>Assistant Professor</b>	Yes	Eligible	Teaching, advising, research, university service	Terminal degree or certification; sometimes outstanding professional achievement
<b>Instructor</b>	Yes	No	Teaching, university service	Master's or certification; usually designates a doctoral student with an assistant professor appointment pending dissertation
Senior Lecturer	Yes	No	Teaching	Demonstrated success as lecturer
Lecturer	Yes	No	Teaching	Master's or certification; sometimes outstanding professional achievement
Professor of Practice	Yes	No	Teaching	Outstanding professional achievement
Faculty Associate	Yes	No	Teaching (no promotion path)	Master's or certification; sometimes outstanding professional achievement
Faculty Research Associate	Yes	No	Research	Master's or certification
Joint Faculty <sup>2/</sup>	Yes	Depends	Teaching, advising, research, university service	Employment in 2 departments, with salary budgeted between them
Affiliated Faculty <sup>2/</sup>	Yes	Depends	Teaching, advising, research, university service	Employment in another department that completely pays salary
Clinical Faculty <sup>2/</sup>	Yes	No	Training, advising	Dependent on rank
Research Faculty <sup>2/</sup>	Yes	No	Research	Dependent on rank
Visiting Faculty <sup>2/</sup>	Yes	No	Temporary teaching, research	Same rank at another postsecondary institution
Visiting Scholars <sup>2/</sup>	Yes	No	Project-specific research, teaching	Same rank at another postsecondary institution
Adjunct Faculty	No	No	Volunteer teaching, advising	Determined by department
Graduate Teaching Associate	No	No	Teaching	Demonstrated success as graduate teaching assistant
Graduate Teaching Assistant	No	No	Teaching	Bachelor's degree

<sup>1/</sup> Any of these positions can be full or part-time. The classifications differ slightly between the universities and all have exceptions.

<sup>2/</sup> These faculty groups hold 1 of the 4 main faculty ranks (in **bold italics**), dependent upon their qualifications.

Meanwhile, *Table 4* provides some additional statistics concerning Arizona University System faculty. The distribution of labor for undergraduate teaching between various faculty classifications in Arizona is rather similar to the national average. For faculty, UA pays the highest salaries and NAU the

lowest. These trends appear consistent with the universities' differentiated missions. UA faculty, responsible primarily for international-grade research, receive greater compensation than NAU faculty, responsible primarily for undergraduate instruction.

**Table 4**

**Arizona University System  
FY 2005 Faculty Statistics**

<b><u>Classification</u></b>	<b><u>Professor</u></b>	<b><u>Associate Professor</u></b>	<b><u>Assistant Professor</u></b>	<b><u>Instructor/ Lecturer</u></b>	<b><u>Unranked Faculty</u></b>
AZ Undergraduate Classes Taught	21.0%	16.6%	13.5%	21.2%	27.7%
US Undergraduate Classes Taught <sup>1/</sup>	18.4%	13.9%	15.1%	28.2%	24.4%
ASU Average Salary	\$101,300	\$69,300	\$60,100	\$44,800	\$34,200
NAU Average Salary	74,000	55,900	47,300	34,150	Not provided
UA Average Salary	95,900	67,200	59,800	55,000	Not provided
ASU Average Starting Salary <sup>2/</sup>	143,000	76,300	58,500	46,000 22,700	42,000
NAU Average Starting Salary	N/A	52,400	48,600	to 42,500	Not provided
UA Average Starting Salary <sup>2/ 3/</sup>	126,300	96,100	70,900	40,000	Not provided
ASU Salary Growth	10.1%	7.8%	5.8%	4.7%	10.7%
NAU Salary Growth	6.6%	5.1%	6.9%	2.6%	Not provided
UA Salary Growth <sup>3/</sup>	6.5%	6.1%	6.3%	5.4%	Not provided

<sup>1/</sup> US Statistics represent FY 2004.

<sup>2/</sup> ASU and UA starting salaries significantly exceed their respective average salaries due to the top-tier research goal of those universities under the Changing Directions initiative, described above.

<sup>3/</sup> UA provided starting salaries and salary growth percentages for FY 2006.